

```

#include <lpc214x.h>

#define lcd_port 0x00FF0000;

#define en 1<<10

#define rs 1<<11

#define rw 1<<20

#define lcd_shift 16


void lcd_init();

void lcd_cmd(unsigned char);

void lcd_data(unsigned char);

void lcd_display(int row, int pos, char*ch);


void lcd_delay(unsigned int time){
    int i,j;
    for (i=0;i<time;i++){
        for (j=0;j<200;j++){
        }
    }
}


void lcd_data(unsigned char){
    IOCLR1 = lcd_port;
    IOSET1 = ch<lcd_shift;
    IOSET0 = RS;
    IOCLR0 = RW;
    IOSET0 = EN;
    lcd_delay(100);
    IOCLR0=EN;
}


void lcd_cmd(unsigned char){
    IOCLR1 = lcd_port;

```

```
IOSET1 = ch<lcd_shift;
IOCLR0 = RS;
IOCLR0 = RW;
IOSET0 = EN;
lcd_delay(100);
IOCLR0=EN;
}
```

```
void lcd_init(){
PINSEL0 = 0xFF0FFFFF;
PINSEL1 = 0xFFFFFCFF;
PINSEL2 = 0xFFFFFFF3;
```

```
IODIR0 = RS|RW|EN;
IODIR1 = lcd_port;
```

```
lcd_cmd(0x38);
lcd_cmd(0x06);
lcd_cmd(0x0C);
lcd_cmd(0x01);
lcd_cmd(0x80);

}
```

```
void lcd_display(int row, int pos, char*ch){
    unsigned char temp;
    if (row == 1){
        temp = 0x80|(pos-1);
    }
    else{
        temp = 0xC0 |(pos-1);
```

```
}
```

```
lcd_cmd(temp);
```

```
while(*ch)
```

```
lcd_data(*ch++);
```

```
}
```

```
void delay(unsigned int time)
```

```
{
```

```
int i,j;
```

```
for(i=0;i<time;i++)
```

```
for(j=0;j<5000;j++);
```

```
}
```

```
int main(){
```

```
unsigned int temp;
```

```
lcd_init();
```

```
while(1){
```

```
lcd_display(1,4,"EnTC DEPT");
```

```
lcd_display(2,4,"PCCOE PUNE");
```

```
delay(20);
```

```
}
```

```
}
```